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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,548

01/23/2004

Michael G. Lowery

7286.US.O1

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09/28/2006

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EXAMINER

LIN, JACK

ART UNIT

PAPER NUMBER

3768

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/763,548

Applicant(s)

LOWERY ET AL.

Examiner

Jack Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br/>Paper No(s)/Mail Date _____</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____</p> |
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### **DETAILED ACTION**

1. This action is in response to applicant's amendment received on September 8, 2006.
2. Applicant's amendments to the specification and Claims 1, 3, 9, 10, and 13 are acknowledged.
3. Applicant's amendments to Claim 1 and 13 are sufficient to overcome the rejection made under 35 U.S.C. 112, second paragraph for Claims 4 and 13. Therefore, the rejection under 35 U.S.C. 112, second paragraph is withdrawn for Claims 4 and 13.
4. On page 10 of Applicant's Remarks/Arguments, Applicant states "Claim 2 has been canceled" in line 2. However, elsewhere in the Remarks/Arguments and in the Amendment to Claims, Applicant indicates Claim 2 is pending. As such, Claim 2 will be treated as still pending for this office action and not canceled. However, Applicant is free to cancel Claim 2 if so desired.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding Claim 9, it does not clearly state what is further limited to provide that the optical data is independent of the cardiac pulse. It is unclear whether the claim is further limiting

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the collecting step to certain time periods, requiring certain durations for the measurement, or other limitations that would limit the data as being independent of the cardiac pulse.

***Claim Rejections - 35 USC § 102***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. The rejection of Claims 1 and 5-10 under 35 U.S.C. 102 (b) as being anticipated by Hall (US 4,955,379) is hereby maintained for the reasons set forth in the Office action mailed May 4, 2006.

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. The rejection of Claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Hall as applied to Claim 1 and further in view of Ukawa et al. (US 5,485,838) is hereby maintained for the reasons set forth in the Office action mailed May 4, 2006.

11. The rejection of Claims 2, 11, and 12 under 35 U.S.C. 103(a) as being unpatentable over Hall as applied to Claim 1 and further in view of Pologe et al. (US 5,766,127) is hereby maintained for the reasons set forth in the Office action mailed May 4, 2006.

*Response to Arguments*

12. Regarding the rejection of Claim 9 under 35 U.S.C. 112, second paragraph, Applicant's remarks have been fully considered but they are not deemed persuasive. Applicant contends that the amended phrase "optical data" is sufficient to clarify that Claim 9 is further limiting the collecting step of independent Claim 1. However, by further clarifying the data to being an optical data does not further clarify how the optical data is independent of the cardiac pulse. As previously stated and restated in this office action, it is unclear whether the data achieves independence from the cardiac pulse by limiting the collecting step to certain time periods (for example, collecting data only during a portion of the cardiac pulse) or by limiting the collecting step to a certain duration (for example, a duration of sufficient length that the effects of cardiac pulse is mitigated). Thus, the claimed subject matter is unclear and the rejection is hereby maintained.

13. Regarding the rejection of Claims 1, 3-10, and 13 under 35 U.S.C. 101, Examiner mistakenly stated "the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility" in the first paragraph. However, the subsequent paragraphs directed the rejection to the statutory eligibility of the invention, which is at issue with the rejection, and not the utility eligibility of the invention. These claims were reviewed in accordance with the guidelines for statutory subject matter published 22 November 2005 at 1300 OG 142 and are found to satisfy the statutory subject matter requirements because the method processes data in order to detect an artifact. Therefore, the rejection of Claims 1, 3-10, and 13 under 35 U.S.C. 101 is withdrawn. It is noted that Applicant's remarks have been fully

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considered but they are moot in view of Examiner's withdrawal of the rejection under 35 U.S.C. 101.

14. Regarding the rejection of Claims 1 and 5-10, under 35 U.S.C. 102(b) as being anticipated by Hall (US Patent 4,955,379), Applicant's remarks have been fully considered but they are not deemed persuasive. Applicant argues that Hall does not disclose the use of optical data. However, the method of Hall comprises the use of a pulse oximeter that applies light of different wavelengths to a patient and then detects the light with a photodetector (column 1, lines 22-30). The photodetectors then convert the light signals ("optical data") into electrical signals so that the signals derived from optical data may be further processed (column 1, lines 30-45). This process is in accordance with the disclosure of the claimed invention. Applicant does not disclose a method that processes the actual light signals or optical data, but rather a process that uses an algorithm to process the electrical signal (page 10-11 of specification). Therefore, Applicant's claimed term "optical data" must be interpreted as "electrical signals corresponding with optical data" which is precisely the method disclosed by Hall. Therefore, Hall anticipates the claimed invention and the rejection is maintained.

15. Regarding the rejection of Claims 3 and 4, under 35 U.S.C. 103(a) as being unpatentable over Hall as applied to Claim 1, and further in view of Ukawa et al. (US Patent 5,485,838), Applicant's remarks have been fully considered but they are not deemed persuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention

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was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It is noted that Ukawa et al. discloses an optical physiological monitor that can be configured to either detect transmitted light or reflected light (column 5, lines 15-46) and to also determine blood pressure from the optical data (column 1, lines 29-32). Therefore, the modification of Hall is taught by the prior art.

16. Regarding the rejection of Claims 2, 11, and 12, under 35 U.S.C. 103(a) as being unpatentable over Hall as applied to Claim 1, and further in view of Poløge et al. (US Patent 5,766,127), Applicant's remarks have been fully considered but they are not deemed persuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It is noted that Poløge et al. discloses a display on an optical physiological monitor in order to alert the operator of the occurrence of an artifact (Figure 6 and description). Therefore, the modification of Hall is taught by the prior art.

17. Applicant's contention that US Patent 6,002,952 has been considered is noted. US 6,002,952 has been added to the references cited.

18. Regarding the objection to Figure 12, Applicant's remarks have been fully considered. The objection to Figure 12 is withdrawn since it is of sufficient quality to illustrate the invention.

*Allowable Subject Matter*

19. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest calculating a set of values selected from a group of equations consisting of the three claimed equations in combination with the other claimed elements.

*Conclusion*

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Diab et al. (US Patent 6,002,952) discloses a signal processing method and apparatus that detects unwanted noise.

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

23. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Lin whose telephone number is (571) 272-7694. The examiner can normally be reached on Monday-Friday, 8:00 a.m. - 4:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on (571) 272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JL  
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ERIC F. WINAKUR  
PRIMARY EXAMINER

